



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,336	03/12/2004	Osamu Wada	119076	6493
25944	7590	12/30/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			SEVER, ANDREW T	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,336

Applicant(s)

WADA ET AL.

Examiner

Andrew T. Sever

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ioka (US 6,558,006).

Ioka teaches in figure 1, an image processing system comprising:

A plurality of image projection means (14 (3a-3d)) for projecting images based on image signals (see figure 3 for how the projection images overlap and the relative placement of each projection means);

Sensing means (5) for sensing a predetermined image projected by each of the plurality of projection means and generating sensing information (arrow leading to part 16 is information);

Overlap-area detecting means for detecting projection areas

Correction information generating means; and

Projection area correction means

Art Unit: 2851

(Compensation data calculator 16 (overlap-area detecting means) takes detected overlap information feeds data to image correcting unit 13 (correction information generating means), which as shown in figure 2 includes shading compensator, geometric compensator and other compensators, image correcting unit then feeds into the projector for projecting the image. (Image correcting unit also partially serves as projection area correction means.) See also column 8, where overlap compensation is taught which would inherently include detecting the overlap region.)

With regards to applicant's claim 2:

Calibration images are generated by test image memory unit and projected by the projectors.

With regards to applicant's claim 3:

The method by which Ioka compensates the data is taught in column 7 lines 39-67 and column 8 with regards to overlap; it includes analyzing individual pixel values.

With regards to applicant's claim 4:

See column 6 lines 5-48 which teaches a geometric (keystone) correction method and column 8 lines 2-65 which teach it with regards to multiple projectors. (See also figures 9a and 9b, which show compensation data or eliminating overlap).

With regards to applicant's claim 5:

See column 6 line 50 through column 7 line 67 for color compensation and difference compensations methods.

In general with regards to applicant's claims 1-5: All of the above methods are executed by the projector of Ioka and according the parts shown in figure 1 and 3 include means for performing all the claimed methods. (Also see MPEP 2114 and MPEP 2181.)

With regards to applicant's claim 6:

As described above the image processing system of Ioka includes a plurality of image projectors (14), sensing section (5), overlap detection section (16), correction information generating section and projection area correction section (13).

With regards to applicant's claims 7-10:

See above (communication means is inherent, otherwise the projectors and controllers would not function as specified).

With regards to applicant's claim 11:

Ioka's methods are executed in a computer (see column 3 lines 52-64). As is known computers inherently store methods as programs, which are then executed to cause the hardware to perform a specified function, accordingly, inherently Ioka contains a program(s) to execute the above functions.

Art Unit: 2851

With regards to applicant's claim 12:

Part 17 is specified as a memory unit, which is a type of information storage medium.

(See MPEP 2114.)

With regards to applicant's claims 13-16:

The methods of Ioka as described above are detailed in column 4 through column 9.

Response to Arguments

3. Applicant's arguments filed 10/14/2005 have been fully considered but they are not persuasive.

Applicant makes several arguments that Ioka does not disclose claimed features. The first that Ioka does not teach projecting an image on the overlap area is clearly contradicted by figure 3 which shows the four projected images overlap each other, it is irrelevant whether one projector or a plurality of projectors project the information displayed in that overlap area, only that their light beam is overlapped as shown in figure 3. With regards to the second argument that Ioka does not teach an overlap-area detecting means; this is not persuasive because column 8 of Ioka clearly teaches that the overlap-area is detected and the projected image is adjusted to compensate for the overlap differences in brightness. Applicant's other arguments are based on the previous two, which are shown to be unpersuasive; accordingly the rejection has been repeated and made final. With regards to the arguments addressing the dependent claims 2, 14, 3, and

Art Unit: 2851

15, applicant argues that Ioka does not disclose detecting the overlap region by adding a brightness index value of a pixel, however Ioka teaches in column 8 lines 32-65 that the overlap is detecting and corrected based on a brightness index value and as taught in column 7 lines 57-67 is done by pixels or pixel blocks. Accordingly the rejection of claims 2, 14, 3, and 15 have been repeated and made final.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

Art Unit: 2851

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William Perkey
Primary Examiner

AS